

forming a *first route* from the *first object route* by connecting the route segments encapsulated in each object step, including the first route segment, in the sequence of the object steps of the first object route;

providing the first object route to direct the first level workflow means;

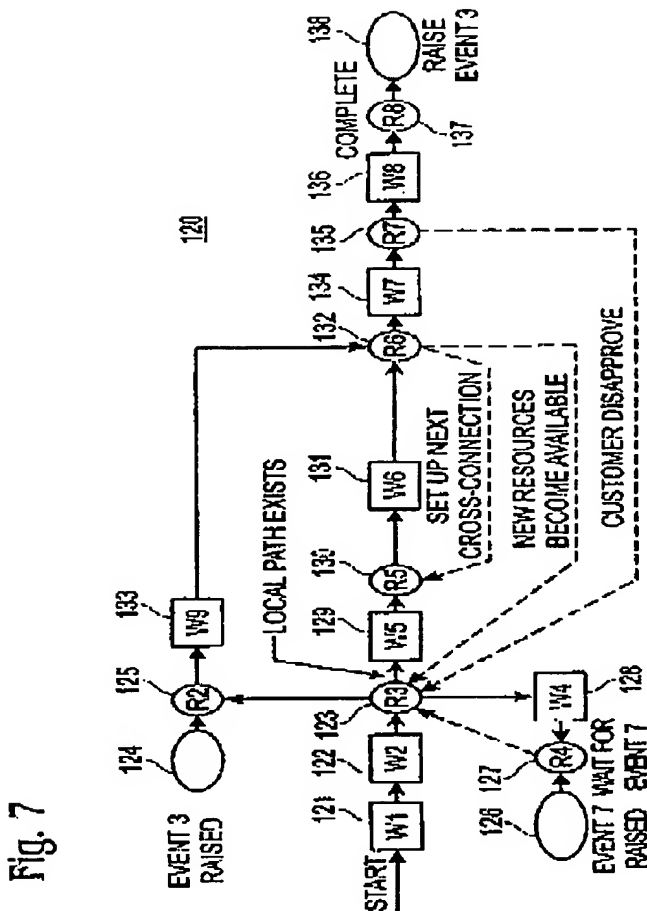
providing the first route to direct the second level workflow means;

such that when the first level workflow starts the first object route, the second level workflow starts the first route and when the second level workflow completes the first route, the first level workflow completes the first object route.

Du does not teach "forming a *first route* from the *first object route* by connecting the route segments encapsulated in each object step, including the first route segment, in the sequence of the object steps of the first object route; ".

2) Du Figure 7 does not illustrate two coordinated routes but one route with a conditional branch provided by the rule node 3, R3 (and also at R6 & R7). The example cited in the Advisory Action is two of the possible paths when executing the single route depending on the conditional branch at rule node 3, R3.

Du Figure 7 illustrates feedback at the **object step level** as described in the response of June 26, 2006. Du does not teach connection of route segments or feedback connection of route segments. For example in Figure 7, R6 has a feedback path to R5 (and R3) at the object step level (WFMS GRM level). Assume that R6 and R5 provide LRM routes (this is not described in Du but make this assumption to illustrate the difference with the present invention). Du does not teach connecting the route in R6 to the route in R5 such that a connect route with R6 and R5 are executed by a second level workflow (LRM) without interaction with the object level workflow (WFMS GRM). In Du, the connection of route steps is at the object route level for both forward and feedback links and does not teach forming connections, either forward or feedback, of route segments at the second level route level. Each LRM call and its route is contained within a GRM step. In Du, the LRM level routes are not connected in the sequence of the WFMS GRM route.



Du Figure 7.

Du does not teach what is illustrated in Figure 3A of the subject disclosure where the route segments are connected outside of the object route as illustrated by the connection of the Audit step in the ERP Stage object to the A1 Set Up step in the ERP Step A1 object or the B1 Retest step in the ERP Step B1 object to the Repair step in the ERP Step A1 object. The shopfloor workflow uses the detailed route asynchronous to the ERP workflow.

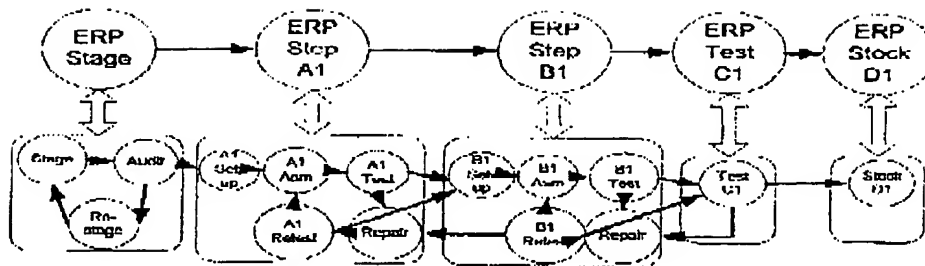


Figure 3A

Present invention Figure 3A.

3) Claims 26-28 are dependent on claim 21 which has the limitations on the interconnection of route segments outside of the object route.

The claims have been amended to clarify the present invention but not to add new subject matter. In claims 21, 29, 32 and dependent claims, the term "encapsulated" has been changed to "associated with" to clarify the relationship between object route steps and route steps. The amendment also clarifies the process of connecting the route segments with the addition of a fourth object route step with fourth route segment for connection to the first route segment associated the first object route step to form the route. This change is to limit the degenerate case where there is only one object route step.

Please allow the amended claims (or the original claims 21-39).

The claims are grouped: 21-28, 29-31, and 32-39 where claims 21, 29, and 32 are independent claims.

Respectfully submitted

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